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USSN 10/030,928

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants : Ernst Rudolf F. Gesing et al.

Serial No. : 10/030,928

Filed : 01/11/2002

For : SUBSTITUTED THIEN-3-YL-SULFONYLAMINO(THIO)-CARBONYL-TRIAZOLIN(ETHI)ONES

Group Art Unit : 1625

Examiner : Patricia L. Morris

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Hon. Commissioner of Patents and Trademarks  
Washington, D. C. 20231

**DECLARATION**

I, Thomas Auler of Bonner Straße 15, 65812 Bad Soden, Germany, a citizen of Germany hereby declare:

that I am an agronomist having studied at the Universität Stuttgart-Hohenheim, Germany;

that I received the degree Dr. sc. agr. at the Universität Stuttgart-Hohenheim, Germany;

that I entered the employ of Hoechst-Schering Agrevo GmbH, Frankfurt/Main in 1997 which is now named Bayer CropScience GmbH and which is part of the Bayer CropScience group. At Bayer CropScience GmbH I am still working in the department of biological research where I have been employed since 1997;

that I have specialized in the field of plant protection and biological research;

that the following tests have been carried out under my supervision and control:

The tests have been carried out according to the attached testing procedure. The results of the tests are listed in the tables which follow. In the tables the tested compound, the application rate and the damage (in % destruction) are shown.

### **1. Pre-emergence herbicidal action**

Seeds of monocotyledonous and dicotyledonous weeds and/or crops are placed in sandy loam in wood-fibre-pots and covered with soil.

The compounds which are formulated as wettable powders or emulsifiable concentrates are dissolved and diluted with water containing adjuvant and are then applied to the surface of the covering soil at different dose rates at an application volume of 600 or 800 litres water per ha.

After the treatment, the pots are placed in the greenhouse and kept under good growth conditions for the plants.

The herbicidal effect is assessed visually as per-cent-figure in comparison to the untreated control three to four weeks after application. 100 % efficacy refers to the complete damage of the assessed plants, 0 % efficacy refers to the appearance of the untreated control.

### **2. Post-emergence herbicidal action**

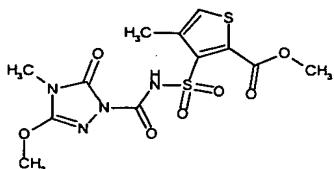
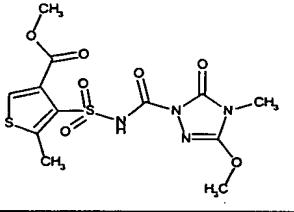
Seeds of monocotyledonous and dicotyledonous weeds and/or crops are placed in sandy loam in wood-fibre-pots covered with soil and grown under good greenhouse conditions.

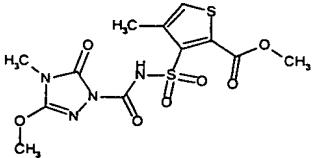
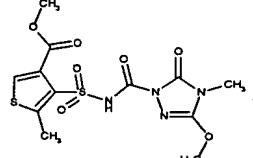
The plants are treated at one-leaf-stage two to three weeks after sowing. The compounds which are formulated as wettable powders or emulsifiable concentrates are dissolved and diluted with water containing adjuvant and are then applied over the top of the plants at different dose rates at an application volume of 600 or 800 litres water per ha.

After the treatment, the pots are placed in the greenhouse and kept under good growth conditions for the plants.

The herbicidal effect is assessed visually as per-cent-figure in comparison to the untreated control three to four weeks after application. 100 % efficacy refers to the complete damage of the assessed plants, 0 % efficacy refers to the appearance of the untreated control.

### Greenhouse trial

Structure	pre-emergence				pre-emergence			
								
Substance	Example 31 of US 6,180,567				Invention Example 2			
Rate (g ai/ha)	40	20	10	5	40	20	10	5
Wheat	20	0	0	0	70	70	20	0
Corn	0	0	0	0	30	20	0	0
Alopecurus	70	30	30	0	90	90	90	80
Avena fatua	80	70	0	0	90	80	80	80
Bromus	80	50	0	0	90	90	90	70
Digitaria	30	20	10	0	90	70	50	0
Echinochloa	80	65	0	0	90	90	90	70
Lolium	70	30	0	0	90	90	80	60
Setaria	90	60	20	0	90	90	90	80
Abutilon	0	0	0	0	60	50	30	20
Chenopodium	70	0	0	0	90	90	80	70
Galium	0	0	0	0	100	100	90	90
Pharbitis	60	0	0	0	90	80	70	50
Polygonum	50	0	0	0	70	60	60	50
Stellaria	40	40	0	0	90	90	90	60
Viola	30	0	0	0	100	60	60	50

<b>Structure</b>	<b>post-emergence</b>				<b>post-emergence</b>			
								
<b>Substance</b>	<b>Example 31 of US 6,180,567</b>				<b>Invention Example 2</b>			
<b>Rate (g ai/ha)</b>	<b>40</b>	<b>20</b>	<b>10</b>	<b>5</b>	<b>40</b>	<b>20</b>	<b>10</b>	<b>5</b>
Wheat	20	0	0	0	70	50	10	0
Corn	0	0	0	0	80	80	70	0
Alopecurus	40	20	10	0	90	90	90	90
Avena fatua	70	30	30	10	90	90	90	90
Bromus	80	80	20	20	90	85	80	80
Digitaria	70	40	10	0	90	90	90	80
Echinochloa	80	80	30	10	90	90	90	80
Lolium	80	70	30	10	90	90	80	70
Setaria	90	90	80	60	90	90	90	90
Abutilon	80	80	20	10	90	90	90	90
Chenopodium	80	60	0	0	90	90	80	80
Galium	90	90	40	10	90	90	90	90
Pharbitis	70	60	20	10	90	90	90	80
Polygonum	70	60	60	40	90	80	90	80
Stellaria	90	80	70	30	90	90	90	90
Viola	80	70	50	50	90	90	90	90

The undersigned declarant hereby declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

12-09-03

Date

Thomas A

Dr. Thomas Auler